Forklift Throttle Body

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to control the amount of air flow to the engine. This mechanism works by putting pressure upon the driver accelerator pedal input. Normally, the throttle body is placed between the air filter box and the intake manifold. It is often fixed to or located next to the mass airflow sensor. The largest part within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to regulate air flow.

On the majority of vehicles, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to be able to move the throttle plate. In cars consisting of electronic throttle control, also called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This particular sensor sends the pedal position to the ECU or also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side which is curved in design. The copper coil placed close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate rotates within the throttle body each and every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and enables a lot more air to be able to flow into the intake manifold. Typically, an airflow sensor measures this alteration and communicates with the ECU. In response, the Engine Control Unit then increases the amount of fluid being sent to the fuel injectors to be able to produce the desired air-fuel ratio. Generally a throttle position sensor or otherwise called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or somewhere in between these two extremes.

Several throttle bodies could have valves and adjustments in order to control the least amount of airflow during the idle period. Even in units that are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or also called IACV that the ECU utilizes to control the amount of air that could bypass the main throttle opening.

It is common that a lot of cars contain a single throttle body, though, more than one could be used and connected together by linkages in order to improve throttle response. High performance automobiles like for instance the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They function by mixing the fuel and air together and by controlling the amount of air flow. Vehicles that include throttle body injection, that is known as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This permits an older engine the opportunity to be converted from carburetor to fuel injection without considerably altering the design of the engine.